DOCUMENT RESUME

ED 286 713 SE 048 371

TITLE International Comprehension of Environmental Problems, Education and Training.
INSTITUTION United Nations Educational, Scientific, and Cultural Organization, Paris (France). Environmental Education Section.
PUB DATE Jun 87
NOTE 9p.
PUB TYPE Collected Works - Serials (022) -- Reports - Descriptive (141)
JOURNAL CIT Connect; v12 n2 Jun 1987

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS College Science; Curriculum Development; Elementary Secondary Education; *Environmental Education; Foreign Countries; Information Networks; *International Cooperation; *International Educational Exchange; International Organizations; *International Programs; *Research Design; Science and Society; Science Education

ABSTRACT

This issue was developed in preparation for the 1987 International Congress on Environmental Education and Training and contains suggested elements for an action plan for the 1990s to be drafted as an outcome of the conference. A major portion of the document discusses nine objectives for inclusion in the proposed plan. These are: (1) the reinforcement of international systems of information and exchange of environmental education (EE) experiences; (2) strengthening research and experimentation in educational contents, methods and strategies for the organization and transmission of messages concerning EE and training; (3) the promotion of EE through the development of curricula and teaching materials for use in general education; (4) promotion of training for personnel responsible for in-school and out-of-school EE; (5) incorporation of an environmental dimension into technical and vocational education; (6) strengthening of public education through the major communication media and the new information technologies; (7) integrating EE more effectively into university education through appropriate mechanisms; (8) promoting specialized scientific and technical training in the environment; and (9) the development of EE through cohesive cooperation at the international and regional levels. (TW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Connect

UNESCO-UNEP ENVIRONMENTAL EDUCATION NEWSLETTER

Connect, Vol. XII, N° 2, June 1987

ED286713

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Susanne Astling
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

International Comprehension of Environmental Problems, Education and Training

Ten years after the ministerial-level Intergovernmental Conference on Environmental Education (EE), held in Tbilisi (USSR, 1977), Unesco and the United Nations Environment Programme are again jointly organizing an international EE meeting — the International Congress on Environmental Education and Training — to be held in Moscow (USSR), 17-21 August 1987.

The first of five symposiums will consider international understanding and environmental problems — the role of environmental education and training; for by international consensus this comprehension is at the core of humanity's aspiration to preserve *and* improve its environment and thus the quality of its very life on earth. The great danger is an exhausted, polluted environment ; the great goal — the vital need — is for a sustainable economic and social development in harmony with the environment. If international cooperation alone can cope sucessfully with problems that transcend national boundaries, then international comprehension is the first, indispensable step towards it. That means environmental education for all people at all levels, from ordinary citizens to the highest decision makers, throughout life.

« Nature to be commanded must be obeyed, » Francis Bacon stated centuries ago — and *that* means thorough research and knowledge of natural mechanisms.

SE 048 371

BEST COPY AVAILABLE

In this connection, it is now universally recognized that many serious environmental problems recorded today are not only largely due to the mismanagement of natural ecosystems and resources by individuals, but also to management based on wrong decisions taken at local, and even national and international level, without adequate consideration of crucial environmental imperatives. The inadequate implementation of regulations and instructions, due to ignorance, lack of accurate information, sound education and/or appropriate training, lead to the same negative results.

Generation, accumulation and flow of knowledge of the types described cannot be understood without reference to experience gained through international cooperation. Indeed, the need for international understanding and cooperation in the field of environmental protection has been recognized by the international community as an international priority.

Environmental degradation of large areas of our globe affects wide groups of population in all sectors of society and is clearly international. Borders cannot impede air pollution, river or marine pollution, destruction of forests, desertification or soil erosion, to mention some of the most important environmental problems which, because of their very nature, cannot be treated as national. National borders, moreover, are often unable to hinder the expansion of environmental problems of a different nature, such as the use of well-known dangerous substances, the transport -and in some cases uncontrolled disposal - of toxic or radio- active wastes, health problems directly connected with water uses or food supply, etc.

Already in the « Recommendation concerning education for international understanding, cooperation and peace » (Unesco, General Conference, Paris, 1974) the use, management and conservation of natural resources, environmental pollution and preservation of the cultural heritage of mankind, were identified among others as problems to which interdisciplinary education promoting international understanding should be related.

Through environmental education, the awareness of both individuals and the community is drawn not only to the interactions among bio- and physico-chemical environmental components, but also to socio-cultural ones, enabling thus individual and collective action, so as to solve local and international, present and future environmental problems. This dimension of environmental education is made clear in the Tbilisi Declaration and recommendations of 1977.

Awareness of the ground fact that any individual or community depends for its life, its very existence, on the dynamic relations with its living or inert environment, is an environmental information of fundamental importance, which contributes to international understanding. This principle is reinforced by the fact that no system is absolutely self-sufficient or complete, and while it can contain smaller harmoniously functioning subsystems (e.g., biotopes), it still constitutes part of a larger system. This system, which cannot be separated through conventional boundaries, follows laws and obeys mechanisms that cannot either be included in pre-determined structures or totally controlled, without upsetting them. Only through the harmonious cooperation of subsystems and individual units can the continuity and balance of the overall structure be ensured.

Environmental Education is in Itself Conducive to Development

The dilemma between development and environmental protection can be a false one. It has been repeatedly proved so by the evolution of events, both in the domain of environmental protection, as in that of development. On the one hand, environmental protection results in the rational management and use of valuable natural resources, indispensable for short- and long-term development ; on the other hand, through environmental care, the possibilities of new investments are being increased, new jobs can be created, while leading, among others, to a more correct utilization of sub- and by-projects, to the improvement of productive processes and to the abatement of losses of raw materials, energy and space.

Moreover, environmental protection prevents ecological catastrophe with incalculable economic consequences on people, agricultural production, material, natural and cultural property, the replacement or restoration of which, even when possible, can have staggering costs. Furthermore, we know today that without development, poverty, misery and hunger will expand, and that no form of contamination is worse than that of children starving to death, a form of pollution no one can ignore today, when praising the achievements of our times.

This knowledge, on which environmental education is founded, should be complemented by awareness of the fact that misery usually goes together with unsucessful attempts at economic development which are one-sided and hostile to the environment (e.g., the case of destruction of tropical forests and desertification), and have not taken the particular natural and social conditions of the region seriously into account.

Elucidation of errors of a specific form of one-sided development should not be mistaken with the refusal of attempts for development, but should aim at correcting and complementing these attempts through the institution of critical and open-to-the-public Environmental Impact Assessment.

The wide-range implementation and assessment of this possibility, already adopted by many national governments, presupposes the development of adequate knowledge and of a sense of responsibility among citizens, so that they can actively participate, expressing opinions in the decision-making process, at the local level at least. Another EE dimension is that related to development, based on the fact that environmental education teaches the limits of many natural resources and sources of energy, directly impelling the search for renewable sources of energy, rational utilization of unexploited sources, such as the oceans of our planet, and reduction of all sorts of losses of mass and energy, encouraging recycling, development of exploitation systems of small amounts of energy, insulation, biotechnology and security systems, as well as timely diagnosis of damages and losses, in all types of production processes.

The development of the above-mentioned processes and the evolution of technology and science presuppose international cooperation, under conditions of peace, mutual understanding and friendship.

Elements for an International Environmental Education and Training Action Plan for the 1990s

There is a growing awareness, both worldwide and within Member States, of the vital need for environmental education in the understanding, prevention and solution of environmental problems. Increasingly there is recognition of the fact that the key to these problems to a great extent lies in social, economic and cultural factors which are at the roots of these problems; and that they cannot be prevented or solved by technological means alone. The values, attitudes and behaviour of individuals and societies toward their environments are profoundly involved, requiring even greater efforts to incorporate them in a truly comprehensive environmental education for all.

To meet the continuing — indeed, augmenting — challenge of achieving sustainable development for all peoples in protected and *improved* environments, the International Congress on Environmental Education and Training, to be held in Moscow in August of this year, is expected to draft an international action plan for the decade of the 1990s. Suggested elements for such a plan follow, based on ideas, information and suggestions emerging from international surveys, studies and research projects, as well as from national, regional and international meetings held with the assistance of the Unesco-UNEP International EE Programme (IEEP). The elements revolve around nine principal objectives and a series of possible actions, jointly designed to promote environmental education and training over the coming decade.

Objective 1 : *Reinforcement of the IEEP international system of information and exchanges of EE experiences*

For swifter and more systematic gathering of results of environmental research and other information relevant to environmental education, and to disseminate these findings to pedagogical research institutions, as well as to improve the flow of information between the latter and the institutions and specialists responsible for preparing educational and training programmes, an International Computerized Information Service for EE (ICISEE) should be set up. All institutions actively involved in this sphere would have free access to this service via online networks (via conventional or packet transmission links).

This service could be run within an international institutional framework designed to facilitate access to data from a wide variety of sources, providing reasonably rapid dissemination and capable of keeping the system operating properly and technically well-maintained. To reduce operating costs, the service would make use of existing technical facilities manned by qualified personnel.

The ICISEE would be responsaible for processing and disseminating general and technical information capable of promoting EE and helping to enhance the effectiveness of efforts in this direction. To this end, it ought gradually to implement, over the next ten years, a series of data bases containing selected, annotated bibliographies, abstracts of articles, books and progress reports on national action, news on current events as well as directories of institutions, programmes and people involved in environmental education activities.

The cost of launching the ICISEE could be kept to a minimum if it were to begin by computerizing a selection of technical and general information published over the past ten years or more by the International EE Programme's newsletter *Connect* and by transmitting it over data links.

The setting up or strengthening of regional networks consisting of EE institutions of excellence and documentation centres is another essential aspect of the reinforcement of an international information system. With this end in view, the documentation centres would serve as focal points for sorting and channelling local information, in order to impart an international character to the data bases made available to the world community via the computerized service. Apart from contributing to the gathering of information, institutions of excellence would communicate the results of their research and experiments in environmental education and training to the documentation centres.

Regional activities for the documentation centres could include centralizing available information on EE, taking the following measures notably : (1) updating publications : (2) preparing syntheses of information for different target publics (researchers, specialists by theme, educational programme development specialists, educational planners; teachers, etc.) ; (3) translation of certain material; (4) selective dissemination of information. In this respect, the regional documentation centres would be ideally placed to produce regional supplements for *Connect*.

The Unesco-UNEP-IEEP quarterly newsletter *Connect* which currently has a circulation of some 13,000 in five languages (soon six) has proved to be one of the most effective international information media in the field of EE to date. Publication should be continued and reinforced in additional languages. Furthermore, as has already been done in Latin American and the USSR for the Spanish and Russian editions (and shortly in Jordan and China for the Arabic and new Chinese edition), decentralization of the printing and distribution of *Connect* ought help reduce current production costs and boost circulation, in response to growing demand.

Objective 2 : *Strengthening research and experiment in educational contents, methods and strategies for the organization and transmission of messages concerning EE and training*

Experiments and pilot projects should be undertaken with a view to developing and implementing educational, training and information programmes, notably for general university education and for general public information on environmental issues, in keeping with the objectives, institutional possibilities and needs of Member States in this sphere. Because environmental problems are to a large extent the outcome of human choices, a special research and experiment effort should be made to devise environmental education and training contents that take into account research findings of the various social sciences.

Research should be undertaken with a view to identifying points of convergence and complementarities with other types of education whose content touches upon fundamental aspects of the human environment. This refers in particular to population education and education on nutrition and health. Pilot projects and experiments ought to be launched on the basis of the resulting research findings, with a view to formulating content components capable of broadening the relevance and functional value of environmental education. To this end, appropriate relations ought to be established with existing international programmes in these spheres.

EE is not an educational approach confined purely to the transmission of knowledge ; it is concerned also with emotional and axiological or value-judging issues. These are crucially important when one is seeking to stimulate permanent patterns of behaviour designed to preserve and improve the quality of the human environment. With this end in view, it is highly advisable to conduct research and experiments on ways to shape attitudes and values pertaining to the environment in educational contexts.

In response to increasingly urgent quantitative and qualitative demand from the international community for EE, and in view of the necessarily limited amount of available resources, it is essential to conduct research and experiments designed to define more effective, more profitable strategies for the transmission of educational messages.

It is particularly urgent, in this respect, to devise new approaches to the training of teaching staff, in the light of the various objectives being pursued (awareness, transmitting knowledge, shaping values, etc.), and to the education and information of the public so as to design EE programmes that provide a more specific and more relevant response to the needs of various target populations. To this end, research on ways of using new information and communications technologies (data processing, data links, video links, etc.) would be especially desirable.

An essential aspect of the implementation of EE is the need to evaluate the complex teaching and learning processes that it involves. Effective development of EE at the international and national levels depends on the formulation of relevant educational messages, tailored to well-defined objectives adapted to the needs of different sections of the population.

For this purpose, it is essential to undertake systematic research to evaluate the real effectiveness of educational and training processes, with a view to making the necessary adjustments to ensure their relevance. Methods of evaluation that involve simulation of environmental issues or practical measures for acting upon the environment would appear to be best-suited to assess the complex skills - other than cognitive - which EE should inculcate. These involve decision-making abilities, problem-solving skills, the ability to plan actions and to induce values capable of shaping appropriate individual and group attitudes towards the environment. Similarly, there is a vital need for research on the respective advantages of different strategies, both old and new, to organize and transmit educational messages.

Objective 3 : *Promotion of EE through the development of curricula and teaching materials for use in general education.*

The exchange of information and experimental data on education programmes and materials adopted by the member States is an essential factor in the spread and rationalization of efforts to generalize EE on a world scale. With this end in view, the International System of Information on Environmental Education (ICISEE) ought to organize the systematic gathering of data on national efforts and should make these data available to users via various means of communication and in various forms.

Curricula and teaching materials form an essential basis on which to guide the work of teachers and pupils in a field as complex as EE. Reinforced measures consequently are needed to develop model curricula for the different degrees and categories of teaching, corresponding to the subjects selected for their integrating potential. In addition, short-term courses treating contemporary environmental issues in an integrated manner are required for the retraining of general and specialist intermediate teachers on the principal subjects concerned. In this context, practical activities should be carried on in conjunction with the national institutions responsible for the framing and implementation of study programmes and educational material, so as to adapt them to national education, environmental and development policies.

There is a need for new teaching aids capable of organizing the requisite knowledge in ways more representative of real environmental issues than conventional printed materials. Thus, for instance, games and simulations which take the environment as their subject and use various micro-environments (towns, forests, parks, factories, zoological gardens, etc.) as educational sites throw into sharper relief the role of scientific knowledge (both social and natural

sciences), together with the functions that technological know-how play, as well as the place of social and ethical values in complex decisions and the preparation of measures to solve environmental problems.

Objective 4 : *Promotion of initial training and retraining for personnel responsible for in-school and out-of-school EE*

In both the short and the long term, the best way to assure continued development of EE at the national level is to incorporate the environmental dimension into the initial or pre-service training of teachers of the social and natural sciences and of technical studies at the middle and higher level. Ensuring a proper place for this essential approach in the new educational plans and programmes of Member States would reinforce the educational reforms they are undertaking.

Since only the in-service retraining of teachers at all levels and in all categories of education can meet the immediate requirements of the development of EE, this is a training priority. It is therefore important to devise, experiment with and evaluate new forms of in-service training, in order to enhance its qualitative and quantitative impact, while at the same time minimizing the costs.

In this respect, experiences involving self-learning and distance training, via media such as the press, radio, TV, video or computer-aided learning, which have been conducted in a number of countries, ought to be subjected to systematic experiments and evaluation with a view to determining whether they are suitable for other regions or countries.

Among categories of teachers for whom environmental education ought to be regarded as a priority, particular mention should be made of personnel in charge of non-formal educational activities (especially adult education, rural education, health and nutrition, literacy, etc., instructors).

Objective 5 : *Incorporation of an environmental dimension into technical and vocational education*

The work of technicians and intermediate level professionals (e.g., blue-collar workers, farmers, craftsmen, etc.) often has a considerable impact on natural resources and, consequently, on the conservation of the productive potential of both natural and man-made ecosystems.

Encouragement should be given to initiatives to develop study programmes for the environmental education of intermediate-level technicians and professionals, and for the training of teachers who will be expected to provide this education. In this context, care should be taken to avoid over-emphasis on problems specific to certain occupations in the content of these courses; rather, their content should seek to offer all categories concerned a general education in environmental matters.

Model educational programmes and teaching materials already developed for general environmental education, notably within the framework of the IEEP, should be supplemented by the development of a coherent series of study programmes and teaching materials tailored to various technical and vocational specializations in the fields of agriculture, industry and the services, selected with reference to their potential impact on the quality of the environment.

As in the case of general education, initial training is the most appropriate method of training teaching personnel. Educational programmes concerning the environment ought, for instance, to be integrated into specialist training courses in polytechnical, agricultural and industrial training colleges, as well as in other institutions that train instructors for technical and vocational education. Greater awareness of environmental problems should also be provided through in-service training of teachers and instructors in various technical training institutions (agricultural colleges, technical high schools, trade-union technical training colleges, etc.).

Since tourism is one of the activities which, by its international scope and intensity, has a great impact on the encironment, an international course on environmental education should be organized for the benefit of national tourist officials of the principal countries concerned.

Objective 6 : *Strengthening of public education and information on environmental matters through the major communication media and the new information and communication technologies*

Although the level of awareness of the environment and its problems has progressed a great deal in certain countries, there still remain substantial unmet needs when one considers that the ultimate aim ought to be the creation of a genuine mass culture - i.e., a culture shared by all sectors of the populaton and by the majority of countries - where environmental issues are concerned.

Among the prime obstacles to the development of genuine environmental literacy is the ambiguity of the information on this subject carried by the media (TV, radio, press, etc.). This is due to the diversity of objectives and priorities that underlie these messages. It thus transpires that it is not always possible for people who lack the requisite education to interpret the messages aimed at them.

It is essential to produce educational programmes for the media that develop a greater capacity for individuals to analyse and evaluate the nature, aims and purpose of the environment-related information they are receiving from the media. After an experimental period, these programmes might systematically be incorporated into all general educational processes connected with the environment, starting with primary education. Correlatively, one priority should be to incorporate an environmental dimension into training programmes for journalists, TV and film producers and directors, for people in advertizing, videotext specialists, etc., for improving environmental messages in the media. These programmes should make use of the interactive imaging possibilities offered by the new communication media (computers, videotext, video). For this purpose, priority should be given to those educational methods (such as environmental games and simulations) capable of reproducing complex situations that are as life-like as possible.

Objective 7 : *Integrating an environmental dimension more effectively into general university education through the development of education resources and training, as well as by introduction of appropriate institutional mechanisms*

In order gradually to overcome certain forms of resistance to cooperation between disciplines and faculties, initiatives should be taken to heighten the environmental awareness of academic leaders to the importance of environmental education in general university courses, and to familiarize them with the concepts, methods and means best-suited to the development of this education.

It is also urgent to design integrated courses on environmental issues for students in a variety of fields during their general university education. These courses should incorporate the contributions of various academic disciplines to sustainable development models based on rational use of natural resources and designed to preserve the biological diversity and esthetic qualities of the environment. Systematic use should be made of the social sciences with a view to highlighting the importance of socio-cultural factors in the genesis of environmental issues.

To promote updating of general university educational programmes on environmental issues, closer and more regular working relationships should be fostered between natural and social science research institutions and specialists in the education sciences.

Objective 8 : *Promoting specialized scientific and technical training in the environment*

Qualitative and quantitative improvements in the training of specialists in subjects concerning the environment consist primarily in working continuously to strengthen existing training programmes and in creating new higher education programmes. These tasks could be greatly facilitated by reinforcing regional networks of institutions set up by UNEP and Unesco and by appropriate utilization of the ICISEE.

The in-service environmental training of specialists, teachers and researchers would seem to be a priority, if one wants highly qualified human resources, thoroughly sensitive to environmental problems. The sites of such UNEP programmes as OCA/PAC, GEMS and Desertification Control, as well as such intergovernmental programmes of Unesco as MAB, IHP and IGCP, constitute natural settings for the environmental training and retraining of specialists and other professionals. These programmes, as well as those of competent international governmental and nongovernmental organizations, especially IUCN, should be reinforced and intensified so as to establish environmental training courses for the specialists and professionnals concerned with the development and implementation of environmental management policies in the perspective of sustainable development. These programmes might also be reexamined for the possibility of providing research fellowships as one of their components.

Objective 9 : *Development of EE through cohesive cooperation at the international and regional levels*

An international system, incorporating the new communication technologies, should be set up to gather, process and disseminate EE information. (See Objective 1 for details.)

Other areas for international and regional cooperation involve : promotion of EE research and experimentation ; promotion of EE training ; preparation of model EE curricula ; comparative case studies of EE legislation in Member States ; international mobilization of technical and financial resources ; and inter-institutional coordination and concertation at the international level. Lastly, an international congress on EE might be held in 1997 to assess progress achieved and to establish an EE Action Plan for the First Decade of the 21st Century in the light of needs and priorities of the world's environments at that future time.

(The September 1987 issue of Connect will be devoted to a report on the International EE and Training Congress to be held in Moscow, USSR, 17-21 August 1987. It will include decisions taken concerning an Action Plan for EE and Training in the 1990s.)

UNEP
The State of the Environment : Education and Training Implications

The framework of the Action Plan of UNEP falls into three groups concerned respectively with environmental assessment, environmental management and supporting measures. Environmental assessment provides the world with the state of the world environment, as well as the means for international exchange of knowledge of environmental situations, problems and management techniques. Environmental management aims at developing comprehensive planning, protection and enhancement of environment for future generations. Support measures have three components : education, training and public information, organizational arrangements and technical cooperation.

Environmental education and training are one of the components of supporting measures of UNEP. Education prepares individuals of all ages, at all levels, in formal and nonformal set ups, to be aware of and concerned about the environment and its associated problems and to work towards the solution of environmental problems and the prevention of new ones. The joint Unesco-UNEP International EE Programe (IEEP), launched in 1975, is the major programme which promotes general environmental education at the national, regional and global levels. IEEP has enabled some 40 countries to introduce EE into their educational systems and programmes.

Environmental training is directed at the systematic incorporation of environmental components into training activities of professionals, policy- and decision-makers. The main objective of training is to enhance sustainable development. General training is offered to policy- and decision-makers, while specialized training is offered to those whose activities have an important bearing on the environment. In collaboration with others (UN agencies, governments, etc.) some 15,000 have been trained in general fields and about 10,600 in specialized fields.

In fulfilling its « Earthwatch » function, each year UNEP prepares a report on the state of the environment ; about 30 topics have been reported. Some 50 projects have been completed, and 20 are currently covering 150 countries. The information supplied by Earthwatch is put to practical use, particularly by developing countries. The projects follow certain accepted criteria.

The earth's supply of living resources is being depleted faster than the rate at which it can be replaced. The World Conservation Strategy was launched in response to this problem. Deforestation is leading to floods, soil erosion, loss of genetic species of plants and animals, landslides, waterlogging, siltation of reservoirs, loss of hydroelectric capacity, and desertification.

Programmes of action on conservation of genetic species, forests, desertification, water, and marine environment have been set up. Each of them has an educational and/or training component built into their respective activities to enhance sustainable development.

The main task is to integrate the Strategy in national programmes whereby each country adopts its own national strategy. The Strategy must be brought into an educational setting to : (a) enable local'national environmentalists to understand the global environmental situation ; (b) demonstrate links between global and local problems and global and local solutions ; (c) initiate the process of learning how to teach the Strategy. Specialist training is required for local professionals within the framework of the Strategy.

Population is intimately linked to development and environment. In developing regions, e.g. Africa and Latin America, population increase has been accompanied by a decline in the quality of life. There is high correspondence between high population density and serious risk of environmental degradation, particularly desertification, deforestation, and poor access to fuelwood and fresh water. Programmes in family planning education have not been very successful, except in a few developing countries. To be effective population education programmes must : (a) extend their scope to bring together literacy, education and awareness-building among both women and men ; (b) use existing extension workers ; (c) adapt programmes to local customs ; and (d) provide advice that permits people to make intelligent, informed decisions.

Although the world has become healthier, developing countries suffer from illness arising from lack of development - communicable diseases which kill millions of people, especially children. The major killer diseases are : diarrhoea, malaria, ouchocerciasis, schistosomiasis, respiratory deseases. The health problems of crowded cities are especially important. Health education programmes must aim at benefitting the majority of the people by (a) being small and local and responding to felt needs ; (b) involving the people themselves ; (c) being led by dedicated leaders ; and (d) being part of integrated community programmes.

Pollution is a threat to rivers, soil, lakes, forest, the atmosphere and to human life. Educational implications are : (a) intensive educational work among agricultural and industrial workers ; (b) more campaigns among banks to include environmental considerations in all the projects financed by them ; and (c) better coordinated efforts by UN agencies and international governmental organizations.

Sustainable development implies meeting the basic needs of all, and extending to all the opportunity to fulfill their aspirations for a better life. Sustainable development rests on political will and can only succeed where there are peace and security for all. Peace education should therefore be part of educational programmes of all countries.

EE News and Publications

N°. 4/85 of the newsletter of the Coordinating Committee for International Voluntary Service (CCIVS) is devoted entirely to « The Environment », particularly to actions of international youth organizations and others devoted to environmental protection and improvement. Write : CCIVS, **Unesco**, 1 rue Miollis, 75015 Paris, France. ◆ *WHO Chronicle*, vol. 40, N°. 6, 1986, contains among other articles a feature on « Managing the Environment for the Control of Disease Vectors ». Write : Office of Publications, **World Health Organization**, 1211 Geneva 27, Switzerland.

The 9th International Symposium on **Tropical Ecology** will be held at the Banaras Hindu University of India, 11-16 December 1987. The theme of the symposium will be « Ecological Management of Tropical Ecosystems ». For details, write : Organizing Secretary, 9th ISTE Symposium, Centre of Advanced Study in Botany, Banaras Hindu University, Varanasi 221005, India. ◆ The International Youth Forum of Peace and Friendship will be held on the island of Chalki, Greece, 13-18 September 1987. The subject of the youth forum will be **« Employment Possibilities for Young People in the context of Environmental Protection and Improvement ».** For more information, write : Ministry of Culture, General Secretariat of Youth, Chalki Office, 25, Panepistimioy St., Athens 101 10, Greece. ◆ An international EE conference and festival, titled **« Children's Visions of Tomorrow's Environment... Is Peace with Our Earth Possible ? »**, will be held in Assisi, Italy, 18-21 March 1988. For details, write : Assisi Nature Council, Casella Postale 107, 06081 Assisi, Italy.

The April 1987 issue of *Development Forum*, published by the **UN Division for Economic and Social Information/DPI** and the United Nations University, contains a number of articles of special EE interest : the discovery of the hole in the ozone layer over Antarctica ; action to conserve Africa's mountain ecosystems, sponsored by the United Nations University and Unesco ; the village of Liuminying, on the outskirts of Beijing - a Chinese ecological model ; and « the blue planet - habitable how long ? » ◆ **Tree Project News** is a recent newsletter devoted to desertification and reforestation in the developing world. It is produced by the Tree Project, a collaborative effort of youth, religious, development, environmental, educational and community-service nongovernmental organizations with the United Nations. Write : Editor, Tree Project News, c/o NGLS, DC2-1103, United Nations, New York, N.Y. 10017, U.S.A.

ITE is a group of twelve teacher training colleges in Europe and the U.S.A. which aims at « international-ization and innovation in teacher education » (thus ITE). The December 1986 newsletter of the group, titled *The Bulletin*, contains an article on a new Joint Study Programme in Environmental Education plus a report on a planning meeting held in this regard. ITE is also planning an International Institute on EE. For more information, write : ITE Secretariat, Högskolan i Falun/Borlänge, Box 2204, S-791 02 Falun, Sweden.

The April/May 1987 issue of the **OECD Observer** contains an article on « Better Implementation of Environmental Policies », which is based on OECD Environment Monograph N° 8. The June/July issue contains an article on « Environmental Assesment and Development Aid », based on Environment Monograph N° 4. Both the *Observer* and the monographs are available by writing to : OECD Publications Services, Château de la Muette, 2 rue André-Pascal, F-75775 Paris Cedex 16, France. ◆ **ACE** News (« Audiovisual and Communication on Environment in Europe ») is a newsletter published in English and French by the European Center for Environmental Communication with support of the Commission of the European Communities. Write : CECE, 55 rue de Varenne, 75341 Paris, Cedex 7, France. **The European Environmental Yearbook 1987** has just been published by Docter International UK (27 Kensington Court, London W8, UK) with the cooperation and financial support of the Commission of the European Communities.

Environmental Education and Information is a quarterly international journal published by the Environmental Institute, University of Salford, Greaves School, Bolton Road, Swinton, Manchester M27 2UX, UK. ◆ The Spring issue of **The Environmentalist** includes an article on « Environmental Education in Third World Schools : Rhetoric or Realism ? » Write : Science and Technology Letters, 12 Clarence Road, Kew, Surrey TW9 3NL, UK. ◆ **The Science of the Total Environment** is an international journal for scientific research into the environment and its relationship with man. It is published monthly. Vol. 55, 1 November 1986, for instance, has 400 pages and is Part A of a report containing papers presented at an international conference on « Man's Role in Changing the Global Environment », held in Venice, Italy, 21-26 October 1985. Write : Elsevier Science Publishers, P.O. Box 330, 1000 AH Amsterdam, The Netherlands. ◆ **Sustainable Development -Constraints & Opportunities,** written by Mostafa Kamal Tolba, Executive Director of UNEP, has just been published by Butterworths, P.O.Box 63, Westbury House, Bury Street, Guildford, Surrey GU2 5BH, UK.

RECYCLE PAPER
Save trees.
Save trees. This issue is printed on recycled paper.

Connect is also published in French as *Connexion*, in Spanish as *Contacto*, in Russian as *Kontakt* and in Arabic as *Arrabita*. Contents are exactly the same in all editions. *Connect* is free. Reproduction of its contents is not only permitted, it is solicited and encouraged.

Connect
Published by Unesco
7, place de Fontenoy, 75700 Paris, France
S.A.G.I. - Paris. Printed in France